

**REMARKS**

Herein, the "Action" or "Office Action" refers to the Office Action dated 12/28/2004.

Applicant respectfully requests consideration and allowance of all of the pending claims of the application. Claims 38-53 are presently pending. Claims amended herein are 43 and 45. Claims cancelled, withdrawn, or non-elected are none. New claims are none.

**Claim Objections**

The Office indicates the following with regard to claim objections:

***Claim Objections***

3. Claims 43 and 45-48 are objected to because:

- Claim 43 is dependent upon a canceled claim; it should apparently be dependent upon claim 38.
- Claim 45 is missing the "and" after the third limitation.
- Claims 46-48 depend from 45 and therefore inherit its deficiencies.

Appropriate correction is required.

Accordingly, Applicant amends claims 43 and 45.

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## Substantive Claim Rejections

### Claim Rejections under §103

The Office rejects all of the pending claims under §103. For the reasons set forth below, the Office has not shown made a *prima facie* case showing that the rejected claims are obvious (under §103). Accordingly, Applicant respectfully requests that the rejections be withdrawn and the case be passed along to issuance.

The Office's rejections are based upon the following references:

- **Thue:** *Baard Thue*, US Patent No. 6,002,707 (issued 12/14/1999);
- **Maeshima:** *Maeshima et al.*, US Patent No. 6,486,923 (issued 11/26/2002);
- **Kohn:** *Kohn et al.*, US Patent No. 6,570,990 (issued 5/27/2003);

### Overview of the Application

The Application describes a technology for preventing the unauthorized copying or use of the content of transmitted and/or stored information (e.g., video and/or audio signals).

In accordance with the teachings of the Application, a display adapter is rendered 5C Standard compliant, hence forming a "secure video card". This adapter includes an interface for coupling the card to a digital bus used to couple 5C standard devices such as a DVD player to other 5C Standard compliant devices. A content encryption key is maintained on the secure video card, thereby precluding decoding of the encrypted data, once stored, or it's copying.

This secure video card is designed to be tamper-resistant and to prevent easy access to unencrypted signals. Processing of the copyrighted information

1 subject to the 5C Standard copyright constraints, in unencrypted form, is  
 2 restricted, to occurring just on the card. In this way; many of the concerns  
 3 copyright owners harbor concerning information being stolen, as the result of  
 4 processing by the main CPU of a PC, can be avoided.

5 In addition to addressing 5C Standard compliance issues, the technology  
 6 described by the Application addresses the concerns some copyright owners have  
 7 regarding the transmission of video signals over analog lines.

8 In accordance with the teachings of the Application, analog video signals  
 9 are transmitted from a source device (e.g., a video adapter) to a destination (e.g.,  
 10 display device such as a monitor) over a plurality (e.g., three, video signal lines).  
 11 Prior to transmitting information to the destination device the identity of the  
 12 destination device is confirmed via receipt, by the source device, of a certificate  
 13 assigned to the destination device by a central authority.

14 A session key, used as a content encryption key, is then generated and  
 15 exchanged between the source and destination devices. The source and destination  
 16 devices each includes a pseudo-random number generator that is driven by the  
 17 session key.

18 The three video signal lines, which are used to transmit the red, green and  
 19 blue analog video signals, are changed (e.g., swapped) on a periodic basis as a  
 20 function of the output of the pseudo-random number generator in the source  
 21 device.

22 In one embodiment, the red, green and blue signals are also altered (e.g.,  
 23 encrypted) by multiplying signal values by coefficients produced by the pseudo-  
 24 random number generator thereby frustrating any decoding of these video signals  
 25 by detecting correlations among the signal values. An input to the pseudo-random

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1 number generator in the destination device is synchronized with the random  
2 number generator in the source device via the exchange of session keys.

3 The number generator in the destination device drives a decryption circuit  
4 which performs an inverse swapping and multiplying operation to that performed  
5 by the source device, thereby re-generating the analog red, green and blue color  
6 signals. In this manner, the video signals received on the three analog lines can be  
7 properly recombined to form proper red, green and blue video signals.

8 The video adapter, described by the Application, can detect when it is  
9 coupled to a display device when the latter is also implemented in accordance with  
10 our technology described by the Application. When connected to a conventional  
11 display device, the video adapter limits its display output to non-encrypted analog  
12 video signals which do not include information subject to a restriction precluding  
13 transmission over unencrypted analog transmission lines.

14 When connected to a display device that has been implemented in  
15 accordance with the technology described by the Application, the video adapter  
16 generates encrypted analog video signals and periodically exchanges a session key  
17 with the display device, which, in turn, is used for decoding the transmitted video  
18 signals. Thus, the display adapter provides some degree of backwards  
19 compatibility in that it can be used with existing monitors and with new display  
20 adapters that embody our technology described by the Application.

## 21 22 Cited References

23 The Office cites **Thue** as its primary reference in its obviousness-based  
24 rejections. The Office cites **Maeshima** and **Kohn** as its secondary references in its  
25 obviousness-based rejections.

Serial No.: 09/608,209  
Att'y Docket No.: MS1-851US  
RESPONSE TO Final OFFICE ACTION DATED  
12/28/2004

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Thue

Covertness of radar is a major problem in defense applications of radiation based sensors. An enemy may employ a search receiver for monitoring the electromagnetic radiation emitted by the radar system.

It is well known in the art that to reduce the effectiveness of the search receivers, covert radars should use the widest possible signal spectrum for their transmissions. Wide frequency spectrum radar has long been recognized and desired for use in radar systems. However, a wide spectrum high energy system generates a very high energy narrow pulse in the time domain. Unfortunately, radar systems of the prior art are unable to transmit or receive such a high energy narrow pulse.

**Thue** describes a covert radar system that provides a wide frequency spectrum radar signal in such a manner which obviates the need for very high energy narrow pulse transmitter and receiver systems. In addition, it emits radar signals that are capable to search receiver thermal noise and, therefore, are substantially undetectable in the normal radar operating range.

Maeshima

**Maeshima** describes a color picture display technology employing an array of light-emitting diodes or other light-emitting elements emitting different colors. A television signal is converted to monochromatic signals of the different colors. A color converter modifies the monochromatic signals, thereby changing the displayed hues to match the hues that would be displayed on a television screen, to

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1 compensate for ambient lighting conditions, or to achieve other desired effects. If  
2 each picture element has only a single light-emitting element, the modification  
3 preferably avoids unlit gaps in monochromatic areas of the displayed picture.

4 The technology described in **Maeshima** enhances the displayed image. It  
5 does not add an element of security to prevent the use of the image during  
6 transmission. Rather it adds an element to enhance the image for display on a  
7 particular type of display technology.

8  
9 **Kohn**

10 **Kohn** discloses system controls reproduction of a video transmission  
11 between a transmitter and a receiver. The system includes an encryptor with an  
12 offset generator adapted to receive the encrypted frame key and to generate a  
13 sequence, of pseudo-random values for the color component; and an adder coupled  
14 to the offset generator and to the color component signal for providing an encoded  
15 color component signal.

16 The system also includes a decryptor with a decryptor offset generator  
17 adapted to receive the encrypted frame key and to generate a decryptor pseudo-  
18 random value for the color component; and a subtractor coupled to the offset  
19 generator and to the color component signal for subtracting the offset signal from  
20 the color component signal.

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## Obviousness Rejections

### Lack of *Prima Facie* Case of Obviousness (MPEP § 2142)

Applicant disagrees with the Office's obviousness rejections. Arguments presented herein point to various aspects of the record to demonstrate that all of the criteria set forth for making a *prima facie* case have not been met.

### Based upon Thue, Maeshima and Kohn

As indicated below, the Office rejects claims all pending claims (38-53):

#### Claim Rejections - 35 USC § 103

5. Claims 38-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thue (U.S. Patent No. 6,002,707) in view of Maeshima et al. (U.S. Patent No. 6,486,923), and further in view of Kohn et al. (U.S. Patent No. 6,570,990).

Applicant respectfully traverses the rejections of these claims. Applicant asks the Office to withdraw its rejection of these claims.

### Claims 38 and 44

The following is the Office's explanation for rejecting claims 38 and 44:

Regarding claims 38 and 44, Thue teaches a method/machine readable medium of processing first, second, and third signals for use in a system having first, second, third and fourth signal lines, wherein the first, second, and third signal lines couple a

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source device to a destination device, a pseudo-random number generator being contained within the source device, the method comprising:

- Generating a fourth signal (col. 2, lines 6-24);
- Generating, using said pseudo-random number generator, pseudo-random output values (fig. 1, ref. num 110 and 130); and
- For each of the first, second, third and fourth signal lines, selecting, for transmission thereon, one of the first, second, third, and fourth signals, the selection being performed in a mutually exclusive manner and as a function of at least one of said pseudo-random output values (fig. 1, ref. num 130 and col. 2, lines 6-24).

The Office indicates that Thue discloses "generating a fourth signal," "generating...pseudo-random output values," and "...selecting...signals...in a mutually exclusive manner and as a function of [the] pseudo-random output values." Applicant submits that Thue (and, in particular, Fig. 1, reference number 130 and col. 2, lines 6-24) do not disclose these elements and features.

Applicant submits that the following portion (col. 2, lines 6-24) of Thue (which the Office relies on) does not disclose the claimed elements and features:

An oscillator 110 provides signal  $F_1$  which is presented to frequency comb generator 110 and frequency synthesizer 120. Frequency comb generator provides eleven signals  $F_1$ ,  $2F_1$ ,  $3F_1$ ,  $4F_1$ ,  $5F_1$ ,  $6F_1$ ,  $7F_1$ ,  $8F_1$ ,  $9F_1$ ,  $10F_1$ , and  $11F_1$ . In the discussion which follows, the prefix of  $F_1$  always represents the multiple of the base frequency, for example,  $F_1$ . Thus, the comb frequency generator provides 10 harmonics of  $F_1$  and  $F_1$  itself.

Selected ones of the harmonic signals generated by frequency comb generator 110 are phase shifted by phase shifting means 130. By way of example, a Barker Code may be applied to the plurality of harmonics  $F_1$  through  $11F_1$ . In these circumstances, only  $4F_1$ ,  $5F_1$ ,  $6F_1$ ,  $8F_1$ ,  $9F_1$ , and  $11F_1$  are shifted

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1 by 180°. The remaining harmonics are passed through the phase shifting means  
2 130 in their original form. All of the harmonics after passing through phase  
3 shifting means 130 are summed by summing means 140 for further harmonic  
4 signal generation.

5 While the Office does cite the above-referenced portions of **Thue** relative  
6 to specific claim elements and features, the Office provides no discussion,  
7 reasoning, or arguments regarding how or why it makes its conclusion the **Thue**  
8 discloses the claimed elements and features.

9 Applicant submits that **Thue** does not disclose “generating, using a pseudo-  
10 random number generator, pseudo-random output values.” Applicant submits that  
11 Fig. 1 of **Thue** shows no such “pseudo-random number generator.” Furthermore,  
12 the description of Fig. 1 never mentions a “pseudo-random number generator.”  
13 Further still, the above cited portion of **Thue** never mentions a “pseudo-random  
14 number generator” or the functionality of one.

15 Applicant also submits that **Thue** does not disclose a selection of one of the  
16 first, second, third, and forth lines for transmission thereon where the selection is  
17 “a function of at least one of said pseudo-random output values.” Applicant  
18 submits that Fig. 1 of **Thue** and its associated description never mention taking  
19 any particular action “as a function of at least one of said pseudo-random output  
20 values.”

21 Furthermore, Fig. 1 of **Thue** and its associated description never mention a  
22 selection of one of the first, second, third, and forth lines for transmission thereon  
23 where the selection is “performed in a mutually exclusive manner.” Instead, **Thue**  
24 utilizes all of its signals for transmission; it is just a select few that are phase  
25 shifted. At lines 14-17 of col. 2, **Thue** says [with emphasis added], “selected *ones*  
of the harmonic signals...*are phase shifted* by phase shifting means 130.” So, the

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1 selected signals of **Thue** are selected to perform phase-shifting. However, the  
 2 claims recite that the selection is "for transmission." So, in accordance with the  
 3 claims, those signal lines left unselected are not transmitted.

4 However, all signals in **Thue** are transmitted. At lines 21-24, **Thue**  
 5 says[with emphasis added], "*All* of the harmonics after passing through phase  
 6 shifting means 130 are summed by summing means 140 for further harmonic  
 7 signal generation."

8 For the reasons given above, Applicant submits that **Thue** does not  
 9 disclose "generating a fourth signal," "generating...pseudo-random output  
 10 values," and "...selecting...signals...in a mutually exclusive manner and as a  
 11 function of [the] pseudo-random output values." Furthermore, Applicant submits  
 12 that the Office has not identified, with specificity, where the Office believes that  
 13 **Thue** discloses the elements and features recited in the claims.

14 For these reasons alone, Applicant submit that the Office has not provided  
 15 objective evidence establishing its a *prima facie* case for obviousness based upon a  
 16 combination of **Thue**, **Maeshima** and **Kohn**.

17 In addition to **Thue**, the Office cites **Maeshima** and **Kohn** to support its  
 18 obviousness rejection. To that end, the Office indicates the following:

19 **Thue** does not teach operating the source device to communicate with the  
 20 destination device so as to establish a session key and synchronization information via  
 21 one or all of the first, second, third and fourth signal lines during a vertical blanking  
 22 period; operating the pseudo-random number generator to generate said pseudo-  
 23 random output values as a function of the established session key; and the selection  
 24 also being performed by a matrix multiplication operation performed on the first, second,  
 25 third and fourth signals utilizing matrix coefficients generated from a plurality of the  
pseudo-random output values.

Maeshima et al. teaches the selection also being performed by a matrix multiplication operation performed on the first, second, third and fourth signals utilizing matrix coefficients generated from a plurality of the pseudo-random output values (fig. 1, ref. num 50 and fig. 2).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine matrix multiplication utilizing matrix coefficients, as taught by Maeshima et al., with the method of Thue. It would have been obvious for such modifications because the pseudo-randomly generated matrix coefficients give a randomness to the encryption and the matrix multiplication operation using the coefficients allows a way to modify the red, green, and blue signals in order to encrypt the video signals (see col. 3, lines 21-23 of Maeshima et al.).

The combination of Thue in view of Maeshima et al. still does not teach operating the source device to communicate with the destination device so as to establish a session key and synchronization information via one or all of the first, second, third and fourth signal lines during a vertical blanking period; and operating the pseudo-random number generator to generate said pseudo-random output values as a function of the established session key.

Kohn et al. teaches the random number generator is stored in the source device (fig. 2, ref. num 200); operating the source device to communicate with the destination device so as to establish a session key and synchronization information via one or all of the first, second, third and fourth signal lines during a vertical blanking period (fig. 6, ref. num 529); and operating the pseudo-random number generator to generate said pseudo-random output values as a function of the established session key (fig. 6, ref. num 530).

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1 It would have been obvious to one of ordinary skill in the art, at the time the  
 2 invention was made, to combine establishing a session key during a blanking interval  
 3 and generating random output values as a function of the session key, as taught by  
 4 Kohn et al., with the method of Thue/Maeshima et al. It would have been obvious for  
 5 such modifications because establishing a session key is needed in  
 6 encryption/decryption devices in order for proper decryption to take place. Generating  
 7 pseudo-random output values as a function of the session key utilizes the established  
 8 session key to use as a seed for a pseudo-random number to provide random data that  
 9 is used in encrypting the data.

#### 11 No Motivation to Combine References

12 Applicant asserts that there is no motivation to combine the teachings of  
 13 Thue and the teachings of Maeshima.

14 Thue describes a covert radar system that provides a wide frequency  
 15 spectrum radar signal in such a manner which obviates the need for very high  
 16 energy narrow pulse transmitter and receiver systems.

17 On the other hand, Maeshima describes a LED color picture display  
 18 technology designed to improve overall picture quality. See its title: "Color Picture  
 19 Display Apparatus using Hue Modification to Improve Picture Quality."

20 The technology of Thue is focused on radar. The technology of Maeshima  
 21 is focused on LED color displays. Since these technologies do not appear to be  
 22 related, Applicant submits that the Office must explain why one of ordinary skill  
 23 in the art at the time of the invention (hereinafter, "OOSA") would look at these  
 24 references and combine their teachings. Furthermore, the Office must identify  
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1 objective evidence in these references that would motivate OOSA to look at these  
2 references and combine there teachings.

3 The selection action performed by **Thue** is intended to further **Thue's**  
4 purpose, which is generating a hard-to-detect radar signal. Its selection action is  
5 not intended to improve the quality of its signal. Rather, **Thue's** selection  
6 technology is intended to increase the *difficulty* of detecting the existence of the  
7 signal(s) it produces.

8 **Maeshima** employs matrix multiplication techniques for its selection action  
9 indented to improve picture quality. Its selection action is not intended to hide its  
10 signals. Rather, **Maeshima's** selection technology is intended to increase the *ease*  
11 of detecting the existence of the signal(s) it produces.

12 Since the purpose of **Maeshima** is to enhance and improve the signal and  
13 the purpose of **Thue** is to conceal its signal's existence, Applicant submits that the  
14 Office must explain why OOSA would look at these references and combine their  
15 teachings. Furthermore, the Office must identify objective evidence in these  
16 references that would motivate OOSA to look at these references and combine  
17 there teachings.

18 Applicant submits that these references cannot be combined in the absence  
19 of objective evidence (found in these references) that would motivate OOSA to  
20 combine the suggestions, teachings, and disclosures of **Thue** and **Maeshima**.

21 Applicant respectfully submits that the Office has not presented objective  
22 and specific evidence sufficient to show that the combination of the teachings of  
23 **Kohn**, **Maeshima**, and **Thue** disclose all of the recited elements and features of  
24 this claim. Accordingly, Applicant asks that the Office withdraw its rejection of  
25 these claims.

Serial No.: 09/608,209  
Atty Docket No.: MS1-851US  
RESPONSE TO Final OFFICE ACTION DATED  
12/28/2004

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1 Furthermore, Applicant asserts that there is no motivation to combine the  
2 teachings of **Kohn** and the teachings of **Maeshima**.

3 **Kohn** describes techniques for protecting HD video signal and it utilizes  
4 encryption and pseudo-random number generators to do that. **Kohn** does not (and  
5 the Office has not cited anywhere that it does) disclose the use of matrix  
6 multiplication of some or all of the video signals. Instead, it utilizes a pseudo-  
7 randomly generated offset and signal addition.

8 On the other hand, **Maeshima** utilizes matrix multiplication, but no  
9 encryption techniques. Since the purpose of **Maeshima** is to enhance and improve  
10 the signal rather than protect it, **Maeshima** does not disclose any signal neither  
11 encryption techniques nor any pseudo-random number generation.

12 **Kohn** says nothing that would motivate OOSA to look towards **Maeshima**  
13 and combine their teachings. **Kohn** is silent on the subject of signal  
14 multiplication.

15 Likewise, **Maeshima** says nothing that would motivate OOSA to look  
16 towards **Kohn** and combine their teachings. **Maeshima** is silent on the subject of  
17 video signal security.

18 Accordingly, Applicant submits that OOSA would not be motivated to  
19 combine the video-signal security techniques of **Kohn** with the video-enhancing  
20 signal multiplication techniques of **Maeshima**. Furthermore, the Office must  
21 identify objective evidence in these references that would motivate OOSA to look  
22 at these references and combine there teachings.

23 Applicant submits that these references cannot be combined in the absence  
24 of objective evidence (found in these references) that would motivate OOSA to  
25 combine the suggestions, teachings, and disclosures of **Kohn** and **Maeshima**.

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Atty Docket No.: MS1-851US  
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1 Applicant respectfully submits that the Office has not presented objective  
2 and specific evidence sufficient to show that the combination of the teachings of  
3 Kohn, Maeshima, and Thue disclose all of the recited elements and features of  
4 this claim. Accordingly, Applicant asks that the Office withdraw its rejection of  
5 these claims.

6  
7 Claims 39-43

8 These claims ultimately depend upon independent claim 38. As discussed  
9 above, claim 38 is allowable.

10 In addition to its own merits, each of these dependent claims is allowable  
11 for the same reasons that its base claim is allowable. Applicant submits that the  
12 Office withdraw the rejection of each of these dependent claims because its base  
13 claim is allowable.

14  
15 Claims 45 and 48

16 The following is the Office's explanation for rejecting these claims:

17 Regarding claims 45 and 48, Thue teaches a method/machine readable medium  
18 of processing first, second, and third video signals which are coupling a source device  
19 to a destination device, the method comprising:

- 20
- Generating a fourth video signal (col. 2, lines 6-24);
  - Transmitting the first, second, third, and fourth video signals over first, second,  
21 third and fourth lines (fig. 1, ref. num 130 and col. 2, lines 6-24);
  - Modifying at least one of said first, second and third signals prior to transmitting  
22 them, the modifying including modulating horizontal synchronization information  
23 on each of said first, second, and third video signals (col. 4, lines 38-59).
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Serial No.: 09/608,209  
Atty Docket No.: MS1-851US  
RESPONSE TO Final OFFICE ACTION DATED  
12/22/2004

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1 The Office indicates that **Thue** discloses “generating a fourth video signal,”  
 2 “generating first, second, third, and fourth video signals over first, second, third,  
 3 and fourth lines,” and modification of a signal including “modulating horizontal  
 4 synchronization information on...video signals.” Applicant submits that **Thue** do  
 5 not disclose these elements and features.

6 In particular, **Thue** does not disclose *video* signals, as recited in the claims.  
 7 Instead, **Thue** discloses a wide frequency spectrum radar signals. Since **Thue** does  
 8 not disclose video signals, it necessarily does not disclose “modulating horizontal  
 9 synchronization information on...video signals.” Furthermore, Applicant submits  
 10 that the Office has not identified, with specificity, where the Office believes that  
 11 **Thue** discloses the elements and features recited in the claims.

12 For these reasons alone, Applicant submit that the Office has not provided  
 13 objective evidence establishing its a *prima facie* case for obviousness based upon a  
 14 combination of **Thue**, **Maeshima** and **Kohn**.

15 In addition to **Thue**, the Office cites **Maeshima** and **Kohn** to support its  
 16 obviousness rejection. Applicant submits that there is no motivation to combine  
 17 the teachings of **Thue** and the teachings of **Maeshima**. Furthermore, there is no  
 18 motivation to combine the teachings of **Kohn** and the teachings of **Maeshima**.

19 The lack of motivation to combine references is discussed above (on page  
 20 13) in the response to the rejections of claims 38 and 44.

21 Applicant respectfully submits that the Office has not presented objective  
 22 and specific evidence sufficient to show that the combination of the teachings of  
 23 **Kohn**, **Maeshima**, and **Thue** disclose all of the recited elements and features of  
 24 this claim.  
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Accordingly, Applicant asks that the Office withdraw its rejection of these claims.

Claims 46 and 47

These claims ultimately depend upon independent claim 45. As discussed above, claim 45 is allowable.

In addition to its own merits, each of these dependent claims is allowable for the same reasons that its base claim is allowable. Applicant submits that the Office withdraw the rejection of each of these dependent claims because its base claim is allowable.

Claim 49

The following is the Office's explanation for rejecting this claim:

Regarding claim 49, Thue teaches a video adapter comprising:

- A video signal generation means for generating a fourth video signal (col. 2, lines 6-24);
- A pseudo-random number generation means for generating pseudo-random output values as a function of the established session key (fig. 1, ref. num 110 and 130); and
- Selection means for selecting one of the first, second, third, and fourth video signals for transmission over each of the first, second, third and fourth signal lines (fig. 1, ref. num 130 and col. 2, lines 6-24).

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1 The Office indicates that **Thue** discloses a "video signal generation means  
2 for generating a fourth video signal," a "pseudo-random number generator means  
3 for generating pseudo-random output values as a function of the established  
4 session key," and a "selection means for selecting one of the...video signals for  
5 transmission over each of the...signal lines." Applicant submits that **Thue** do not  
6 disclose these elements and features.

7 In particular, **Thue** does not disclose *video* signals, as recited in the claims.  
8 Instead, **Thue** discloses a wide frequency spectrum radar signals. Since **Thue**  
9 does not disclose video signals, it necessarily does not disclose "a video signal  
10 generation means."

11 Furthermore, Applicant submits that **Thue** does not disclose a "pseudo-  
12 random number generator." Applicant submits that Fig. 1 of **Thue** shows no such  
13 "pseudo-random number generator." Furthermore, the description of Fig. 1 never  
14 mentions a "pseudo-random number generator." Further still, the above cited  
15 portion of **Thue** never mentions a "pseudo-random number generator" or the  
16 functionality of one.

17 Furthermore, Applicant submits that the Office has not identified, with  
18 specificity, where the Office believes that **Thue** discloses the elements and  
19 features recited in the claims.

20 For these reasons alone, Applicant submit that the Office has not provided  
21 objective evidence establishing its a *prima facie* case for obviousness based upon a  
22 combination of **Thue**, **Maeshima** and **Kohn**.

23 In addition to **Thue**, the Office cites **Maeshima** and **Kohn** to support its  
24 obviousness rejection. Applicant submits that there is no motivation to combine  
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1 the teachings of **Thue** and the teachings of **Maeshima**. Furthermore, there is no  
2 motivation to combine the teachings of **Kohn** and the teachings of **Maeshima**.

3 The lack of motivation to combine references is discussed above (on page  
4 13) in the response to the rejections of claims 38 and 44.

5 Applicant respectfully submits that the Office has not presented objective  
6 and specific evidence sufficient to show that the combination of the teachings of  
7 **Kohn**, **Maeshima**, and **Thue** disclose all of the recited elements and features of  
8 this claim.

9 Accordingly, Applicant asks that the Office withdraw its rejection of these  
10 claims.

11  
12 Claims 50-53

13 These claims ultimately depend upon independent claim 49. As discussed  
14 above, claim 49 is allowable.

15 In addition to its own merits, each of these dependent claims is allowable  
16 for the same reasons that its base claim is allowable. Applicant submits that the  
17 Office withdraw the rejection of each of these dependent claims because its base  
18 claim is allowable.  
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**Dependent Claims**

In addition to its own merits, each dependent claim is allowable for the same reasons that its base claim is allowable. Applicant submits that the Office withdraw the rejection of each dependent claim where its base claim is allowable.

**Conclusion**

All pending claims are in condition for allowance. Applicant respectfully requests reconsideration and prompt issuance of the application. If any issues remain that prevent issuance of this application, the Office is urged to contact the undersigned attorney before issuing a subsequent Action.

Respectfully Submitted,

Dated: 3-14-05

By: 

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Serial No.: 09/608,209  
Atty Docket No.: MS1-851US  
RESPONSE TO Final OFFICE ACTION DATED  
12/28/2004

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